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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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THIS IS UNEVALUATED INFORMATION

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1. Before World War II, the former Sousedik Firm in Vsetin (N 49-20, E 18-00), which became MEZ Vsetin, National Enterprise, in 1946, produced AC three-phase commutator motors, stator-fed, of the Winter-Eichberg type. This was piece production only, although some of these motors were exported. MEZ Vsetin continued to produce these motors. Their current program included the following sizes, the size of the motors being determined by the diameter of the stator lamination: 315 or 375 mm. as the smallest type, progressing to 400, 450, 500, 560, 630, 800, 900, and 1,000 mm. By the summer of 1954, MEZ Development in Brno had completed the design for the 1,120-mm. type. The dimensions followed the Ra20 line of the CSN-ESC (Czechoslovak Standards - Czechoslovak Eletrotechnical Union). However, the 710-mm. size, source believed, was not yet produced by the summer of 1954.

2. AC three-phase commutator motors, stator-fed, of larger sizes than those produced at MEZ Vsetin were not produced in Czechoslovakia. AC three-phase commutator motors, stator-fed, in sizes smaller than 315 mm. were produced at MEZ Zidenice in Brno-Zidenice; the smallest type usually produced measured 160-mm., although, occasionally, they produced the 140-mm. size. Originally, the small sizes were also produced at MEZ Vsetin, but this production was transferred, along with all the blueprints, to MEZ Zidenice in 1950. In 1953, however, production of the largest type within the small size range, the 315 or 375 mm. type, was transferred back to MEZ Vsetin.

3. The designation for AC three-phase commutator motors, stator-fed, was the letter "K", followed by a number which indicated the size of the motor. Motors of each size were manufactured in two, or occasionally three, lengths, the length of the motor being determined by the length of the stator lamination. An "A" was added

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to the designation to indicate medium length and "B" for the longest length. Each motor was manufactured with a different number of poles. The motor most frequently manufactured was one with four poles; the small-size motor, however, always had two poles. A figure indicating the number of poles was added to the end of the designation. For example, a complete designation was K 63 B-8.

4. The designing of the "K" motor was directed by Dr. Vilem Klima, manager of MEZ Development at that time and an outstanding technician in this field. The motors had a relatively small diameter of the stator lamination, considering their length. This made them particularly difficult to cool. This design also necessitated a large number of brushes and, consequently, the motor was inclined to develop defects making maintenance difficult. In general, the "K" motors developed a maximum output of about 300 kw. which meant that they were relatively very powerful. The plant was very proud of this production, especially because the "K" motors were relatively inexpensive. However, other factories, mainly the V.I. Lenin Works, complained about the "K" motors, claiming that they were carelessly manufactured.

5. Each "K" motor was equipped with a speed regulator, also a product of MEZ Vsetin. A stepless regulating transformer was used with small motors and an induction regulator was used with large motors. Induction regulators, which were more expensive to produce, were also used with small motors when the best possible regulating function was necessary. In general, the tendency during 1954 was to use induction regulators more frequently than regulating transformers.

6. The induction regulators had two poles and were of various sizes, the size being determined by the diameter of the stator lamination. The dimensions complied with the Ra20 line of the CSN-ESC. The induction regulator usually had a smaller diameter of the stator lamination than the "K" motor for which it was used. The designation for induction regulators was IR, plus the numerical size indication in millimeters. [redacted] the regulating transformers were designated RT and knew this designation was followed by a numerical indication of the cross-section of the transformer core in square centimeters. 50X1

7. The commutator motors comprised about 10% of the value of the total yearly output of MEZ Vsetin; in other words, their yearly output had a value of from six to ten million crowns.[1] Source was able to remember only the following deliveries:

a. K 63 B-8 motors were delivered to the 1st May Works, former Matador factory, in Puchov (N 49-08, E 18-20), in 1951. This was a factory for the production of rubber goods which, [redacted] believes, was built after 1945. The "K" motors were used for calender drive. 50X1

b. K 90 motors were delivered to a metal foundry in Rokycany (N 49-44, E 13-36) in 1952 to be used for leather-belt drive. In 1950, K 90 motors were delivered to the rolling mills in Chomutov (N 50-24, E 13-26) to be used in the production of water-turbine blades. [redacted] where the turbines were produced. He believed the order was destined for the USSR. 50X1

c. During 1953 and 1954, MEZ Vsetin delivered a complete sectional drive to the paper works in Gottwaldov and also to [redacted] paper works located somewhere in the Ceske Budejovice region. Each

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"K" motor, along with its induction regulator, was connected to a regulating motor. This regulating system was similar to those produced by General Electric or AEG, except that MEZ did not use a reluctance synchronous motor, but rather, a motor with both stator and rotor rotating, and fed by alternating current. The stator was driven at the desired constant speed while the rotor was mechanically connected with the driving motor. This design was unsatisfactory because the entire regulating unit shook when the speed was changed, causing the moving paper to tear.

d. Small "K" motors with low output were delivered in small quantities on a continuous basis to the Factory for Machine Tool Production (TOS) in Prague-Hostivar to be used for grinding machines produced there.

It is source's opinion that MEZ Vsetin frequently delivered commutator motors for purposes where much less expensive wound rotor induction motors with resisters in the rotor circuit would have been satisfactory.

8. During 1951, MEZ Vsetin produced from 10 to 20 units of synchronous generators with all accessories. The output of these generators was about 20 hp. They were to be driven by a gasoline engine and placed on a movable stand. They were destined for the Czechoslovak army. [redacted] this production was probably transferred to MEZ Frenstat, National Enterprise, in Frenstat pod Radhostem (N 49-33, E 18-13) during 1951. MEZ Vsetin also produced several units of synchronous generators with an output of about 40 hp during 1951. [redacted] their destination. After about the end of 1951, no synchronous generators were produced at MEZ Vsetin.

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